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Digital Parental Engagement as a Strategy for Language Learning Equity Among Multicultural High School Students in Saudi Arabia

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Abstract

In Saudi Arabia's culturally diverse environment, parental involvement plays a crucial role in enhancing students' language acquisition. The study evaluates the impact of digital involvement on language acquisition for high school students; data were collected from 500 students and 250 parents over six months. Real-time feedback and communication via digital platforms such as WhatsApp, Classera, and Google Classroom enabled parents to monitor their children's progress and actively support learning activities. The use of digital parental engagement strategies resulted in a 21% increase in average speaking and writing proficiency scores measured by standardised language assessments. Qualitative findings revealed that traditional views limited parental involvement, whereas digital tools promoted proactive engagement through frequent communication. These strategies promote equitable language learning opportunities across diverse cultural and regional educational contexts. Educators should provide training in the use of digital tools, such as feedback systems and progress monitoring, to enhance language learning.

Keywords: Digital Parental Engagement, Language Acquisition, Equitable Learning, Educational Technology, Multicultural Context.



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Introduction

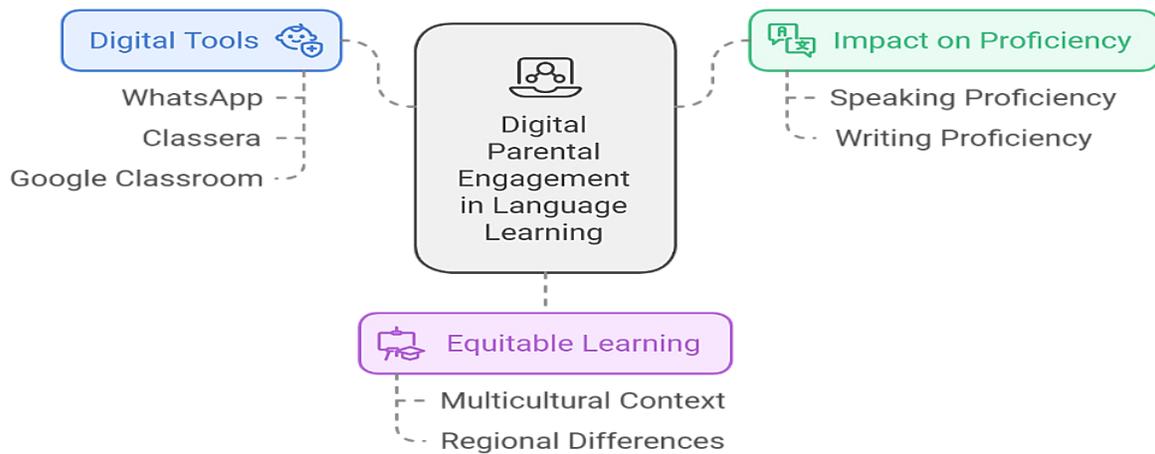
Parental engagement has long been recognized as a key factor in enhancing students' academic performance, particularly in language learning. With the increasing adoption of digital communication tools, there is a growing opportunity to leverage technology to support more effective and inclusive parental involvement.

In Saudi Arabia's diverse educational landscape, parental participation is increasingly recognized as a critical factor in promoting students' language acquisition and overall academic success. Research constantly shows that active parental engagement can make a real difference in raising attainment (Đurišić & Bunijevac, 2017, pp. 137-153), particularly in speaking and writing skills amongst pupils (Murshidi et al., 2023, pp. 1-7). Digital technologies have expanded the linearity of parental participation in education (Owens et al., 2023, pp. 1-11), and real-time feedback is therefore much easier to convey (Bordalba & Bochaca, 2019, pp. 44-62). Earlier studies highlight the absence of systematic professional and stakeholder engagement in post-secondary education and argue that educational quality improves when institutions actively involve key actors beyond the classroom (Ahmed & Aziz, 2007). The findings support the view that family engagement must be structured rather than incidental. A Saudi Arabian international school serves a multicultural population; therefore, digital tools such as WhatsApp, Classera, and Google Classroom would likely minimise gaps in educational support and expand opportunities for equitable language learning. However, most studies do not examine the extent to which such tools can facilitate effective parental involvement across and within diverse cultural and regional contexts.

Although the literature is replete with positive accounts of parental involvement in education, inequities exist in parents' language-learning engagements with their children, particularly in multicultural settings such as those of Saudi Arabian international schools. Traditional thinking may restrain how often and how parents will interact; regional differences in digital literacy, coupled with cultural expectations, could further shape the role of digital communication tools. While most studies have looked at the general role of parental involvement in academic performance (Utami, 2022, pp. 37-43), very few investigations concentrate on digital tools in influencing language acquisition and such strategies leading to equitable learning processes in diverse cultural educational settings. Fragmented quality-assurance mechanisms impede consistent educational improvement and equity. It underscores the need for unified frameworks that integrate stakeholder participation, which aligns with digitally mediated parental engagement models. Ahmed (2012)

The study responds to the call for empirical evidence on how digital parental engagement can support improved language acquisition among Saudi Arabian high school students. The current study examines the magnitude of the effects of digital tools on speaking and writing proficiency across regions and, in doing so, informs technology use to support parents' involvement in multicultural educational contexts. Ahmed demonstrates that governance and accountability structures are central to achieving equitable educational outcomes. The study provides a policy-level justification for embedding parental engagement, including digital forms, within institutional quality frameworks (Ahmed, 2008). The findings will be useful for educators, policymakers, and school administrators by providing actionable recommendations for integrating digital engagement strategies, which can be adapted to diverse cultural and regional contexts. The study contributes to the growing discourse on Equitable Education and Technology-Enabled Learning structure for parental involvement, as illustrated in Figure 1

Figure 1: *Equitable Education and Technology-Enabled Learning Structure for Parental Involvement*



Literature Review

Parental Engagement in Education

Parental participation is widely acknowledged as a key to students' academic achievement (Schmid & Garrels, 2021, pp. 456-473), including in language studies (Fuh Suh, 2022, pp. 21-32). Indeed, research has invariably demonstrated that students from families whose parents are meaningfully engaged with the school perform even better, especially in attendance (Ms. Vaishnavi Harbola & Dr. Shruti Dutt, 2024, p. 650-659) and motivation as well as in language skills (Pinneo & Nolen, 2024), than those whose parents are less involved in their child's schooling (Grolnick & Pomerantz, 2022, pp. 325-335). This involvement may be in the form of attending school meetings (Kausar et al., 2022, pp. 916-923), supporting homework (Geduld, 2024; Xu, 2023), and encouraging language practice (Heidlage et al., 2020; Kapengut & Noble, 2020). More importantly, language acquisition requires reinforcement at home (Alias & Ramly, 2021; Wahyuni & Bee Tin, 2024), as greater exposure and practice with the language lead to improved proficiency. Research also denotes that parental involvement differs according to various settings: international schools (Hagage Baikovich & Yemini, 2023, pp. 1-17), where the need for support of children in learning a new language is to be supported because language barriers and diversity can also be an issue. In any case, time constraints, limited knowledge of school curricula, and traditional educational concepts can all create obstacles to the predominant form of parental involvement (Motshusi et al., 2024, pp. 21-41). Recent findings show that institutional quality and learner outcomes improve when accountability mechanisms and stakeholder participation are aligned. This supports the argument that parental engagement should be treated as part of a broader quality culture rather than an informal practice. Ahmed et al. (2025)

Digital Communication Tools for Parental Involvement

The development of digital communication tools has significantly expanded opportunities for parental involvement in children's education (Apdillah et al., 2022; Qualter, 2024; Woodhouse et al., 2024). Digital tools such as WhatsApp, Classera, and Google Classroom have facilitated real-time communication between parents and teachers. In fact, these tools will enable the instantaneous updating of student progress, provide feedback on assignments (Ahmed, 2021), and provide notice of classroom activities. These tools transcend geographical and temporal

barriers through fluid communication, which can occur more frequently. Such regular and broader access would provide parents with more opportunities to monitor and support their children's learning and development. Applying the Technology Acceptance Model, this study shows that clarity, usability, and timely feedback increase learner acceptance of digital assessment systems. These findings extend to parental engagement platforms that rely on similar usability principles. Ahmed et al. (2021). Studies show that digital engagement tools promote greater parental participation by making information more accessible to families (Rizk & Hillier, 2022, p. 100099), thereby facilitating communication with teachers. A Saudi-based study confirms that digital platforms, such as Google Classroom, enhance communication, engagement, and learner autonomy when implemented effectively (Ahmed & Rehman, 2021). It provides empirical support for the use of digital tools to strengthen parent–school interaction. However, the actual potential of those platforms varies significantly due to issues of digital literacy, cultural approaches to technology, and access to digital resources (Deschênes, 2024; Timotheou et al., 2022). In fact, the role of digital tools in promoting language acquisition remains practically uncharted territory, especially in non-Western contexts where other forms of parental involvement have dominated (M. Harsha Vardhini, 2023, p. 507-512).

Language Acquisition and Learning Outcomes

Language acquisition is a complicated process that comprises the development of speaking, listening, reading, and writing proficiency (Asmae & Sakale Sana, 2024; Huang et al., 2020; Magyar et al., 2022). Within such multiculturally diverse educational settings, students must achieve varying levels of proficiency, shaped by differences in language background and exposure, when interacting with chatbots (Ahmed, 2008). Research has demonstrated that ongoing language practice and parental reinforcement are critical to improving learning outcomes in speaking and writing (Bird et al., 2024, pp. 255-268). Digitally supported reflective practices empower learners and promote sustained engagement beyond classroom boundaries. This supports the role of digital mediation in extending learning support into the home environment. Ahmed & Rehman (2023). Family dynamics and daily home practices across multicultural household's shape language learning. Qaralleh et al. (2025). It strengthens the argument that family-level factors mediate language acquisition, making parental engagement a substantive mechanism rather than a peripheral variable. In this respect, digital parental engagement can support language acquisition by creating opportunities to practice and receive real-time feedback (Woodhouse et al., 2024a, p. 520), thereby reinforcing learning beyond the classroom. The effectiveness of such a strategy for engagement depends on the quality of the communication and the targeted language skills. To date, while the literature recognises a parental role in supporting the development of a child's language, few studies have examined how this can be effectively supported through digital tools and whether the results of this approach represent measurable changes in language proficiency across regions (Musengamana, 2023, pp. 1-21). Mobile-assisted language learning improves learner motivation and receptive skills when scaffolding is provided. It supports your claim that structured digital support can translate into measurable language development in Saudi EFL contexts (Farid & Ashraf, 2025).

Saudi Arabia-Specific Cultural and Regional Factors

Saudi Arabia provides a specific context for exploring parental involvement, given its rich cultural tapestry and the presence of international schools that often serve expatriates and local students. However, cultural norms and expectations regarding parental involvement can vary widely across regions, depending on their digital literacy, socioeconomic status, traditional notions of education, and the role of technology in policy (Ahmed et al., 2021). Whereas in some

regions, digital engagement may go down very well—for instance, parents leap at the chance to make sure they are better connected with schools, in other areas, cultural expectations can affect the extent of parental involvement, especially for mothers, who, socioeconomically and family-wise, may not be allowed to be so participatory. Moreover, access to these digital resources varies, with urban areas being more accessible than rural areas. It supports your argument that schools require planned systems, such as training, monitoring, and feedback loops, when implementing digital parental engagement. Aziz et al. (2010). These regional differences can affect the overall effectiveness of digital parental engagement in language learning; therefore, testing strategies for adapting these approaches across different cultural contexts is crucial (Banić & Orehovački, 2024, p. 32). Earlier studies also emphasize that equity-oriented educational reform requires governance coherence, stakeholder inclusion, and capacity building. Digital parental engagement aligns with these principles by operationalizing inclusion through technology. Ahmed (2008); Ahmed (2012)

Gaps in Existing Research

Substantial research has examined the benefits of parental involvement and the integration of digital tools into the learning environment. However, few have emanated from such contexts as Saudi Arabia (Khan, 2024, pp. 41-55), where cultural diversity is at the forefront, or have explored in detail the positive contribution that both these factors combined would have toward language acquisition. Most of the literature is situated in Western contexts; there is a significant gap in understanding how to optimize digital parental involvement in non-Western multicultural settings to support language learning. The central aims of the study are:

- To establish how digital engagement of parents impacts the students in terms of language acquisition, specifically speaking and writing.
- Establish variation in regions regarding the level of effectiveness in implementing digital tools to enhance parental involvement.
- Identify the facilitating and hindering factors pertinent to the adoption of digital communication platforms to assist language learning.

Research Questions

- How does digital parental engagement affect the speaking and writing proficiency of Saudi Arabian high school students?
- Which regional differences can be determined in the effectiveness of digital tools for improving parental involvement?
- What factors might affect whether or at what point in time digital communication platforms can be effective in the process of language acquisition within a multicultural educational framework?

Research Methodology

Research Design

This study employs a mixed-methods design to examine the role of digital parental engagement in the acquisition of a new language among Saudi Arabian secondary school students. A mixed-methods approach combines quantitative and qualitative data to provide a comprehensive view of how the use of digital tools affects learner outcomes and the factors influencing parental involvement. Quantitative data is gathered through surveys and standardized language assessments. Qualitative data will be collected through interviews and focus groups with parents,

teachers, and students in the target groups. Triangulation of findings will be achieved through this design, as the quantitative results can be placed in a qualitative context to strengthen the study. This study will examine the effects of digitally active parenting on speaking and writing proficiency and explore regional differences in engagement patterns. The study aims to provide practical recommendations for educators and policymakers based on a combined analysis of quantitative trends and qualitative experiences living across different cultural contexts in Saudi Arabia (Ahmed et al., 2021).

Participants and Sampling

The research also engaged 500 high school students and 250 parents from four regions of Saudi Arabia: central, eastern, western, and southern. Samples were collected to ensure representativeness through purposive sampling, with cross-sections of various cultural and socio-economic backgrounds. Schools in each region have been selected based on their use of contemporary digital communication tools, such as WhatsApp, Classera, and Google Classroom, to engage parents in their students' language learning. The sample will comprise expatriate and Saudi students studying at an international school, as shown in Table 1. Therefore, it is relevant to consider an evaluative approach to a culture-oriented strategy for a target population. Participants at the school level were sampled, and invitations were sent to those actively using digital tools to monitor their children's academic progress. Moreover, two teachers from each school were interviewed to provide information on the role of digital parental engagement in fostering language acquisition.

Tables 1: *Participant Distribution Across Regions*

Region	Number of Students	Number of Parents	School Type
Central	150	75	International Schools
Eastern	125	60	International Schools
Western	125	60	International Schools
Southern	100	55	International Schools
Total	500	250	

Data Collection Methods

Quantitative Data (Surveys, Standardized Tests)

The quantitative data is based on a combination of questionnaires and standardized language proficiency tests, as mentioned in Table 2. The questionnaires assessed the frequency and type of parental involvement with digital tools, while the language tests were administered in speaking and writing. Pre- and post-study measurements were conducted over six months to assess changes in language proficiency test standards, which had been standardized against international language-learning norms. The questionnaires also collected information on sociodemographic characteristics and regional variations in the use of digital tools to identify factors that may influence engagement patterns.

Tables 2: *Overview of Quantitative Data Collection Tools*

Data Collection Tool	Purpose	Frequency
Surveys	Measure parental engagement levels	Pre- and post-study
Standardized Language Tests	Assess speaking and writing proficiency	Pre- and post-study

Qualitative Data-Interviews and Focus Groups

Qualitative data were collected through semi-structured interviews and focus groups with a subsample of parents, students, and teachers. These sessions discussed participants' experiences with digital parental engagement, focusing on how cultural norms, levels of digital literacy, and resource accessibility shaped these experiences. Interviews with teachers revealed the effects of digital tools on children's language development. In contrast, a focus group with their parents was conducted to understand the facilitators and barriers to participation, as shown in Table 3. All audio-recorded interviews and discussions were transcribed verbatim, and a thematic analysis approach was employed to identify patterns and unique experiences across different geographies.

Tables 3: *Overview of Qualitative Data Collection*

Method	Participant Type	Number of Sessions	Focus Area
Semi-Structured Interviews	Teachers	16	Impact of digital tools on language learning
Focus Groups	Parents and Students	12	Barriers and facilitators to engagement

Data Analysis Techniques

The study's approach to analyzing these findings has employed both quantitative and qualitative methods. The quantitative data were analyzed using statistical methods, including paired t-tests and regression analysis, to assess changes in language proficiency and to examine the relationship between parental engagement levels and language outcomes. It helped identify trends in the frequency of digital tool use across districts. Qualitative data were analyzed using thematic analysis, which involved coding and categorization of transcribed interview and focus group data to identify key themes related to cultural influences, engagement barriers, and regional differences. The integration of quantitative and qualitative findings enabled a comprehensive understanding of how digital parental involvement affects language acquisition and whether the observed effects vary with contextual factors (Sarwar & Farid, 2024).

Results and Discussion

Quantitative Findings

Improvements in Language Proficiency Scores

In the quantitative analysis, a significant improvement was found in students' language proficiency scores, particularly in speaking and writing. During the six-month study period, the average scores on the standardized language assessments increased by 21% relative to baseline. Improvement across all regions was consistent, although the rate of improvement varied. The central region recorded the largest gains, at 24%, compared with the southern region's 16%. These results suggest that digital parental engagement platforms, such as WhatsApp, Classera,

and Google Classroom, foster effective real-time feedback and consistent support for language practice at home, thereby influencing students' language acquisition. A recent study demonstrates that combining traditional instruction with digitally mediated tools significantly enhances EFL learners' speaking proficiency and engagement beyond LMS-only environments. Abbasi et al. (2025). The findings reinforce the argument that technology-supported stakeholder involvement, including parental engagement, can strengthen language learning outcomes.

Figure 2: *Improvements in Language Proficiency Scores across Regions and Time*

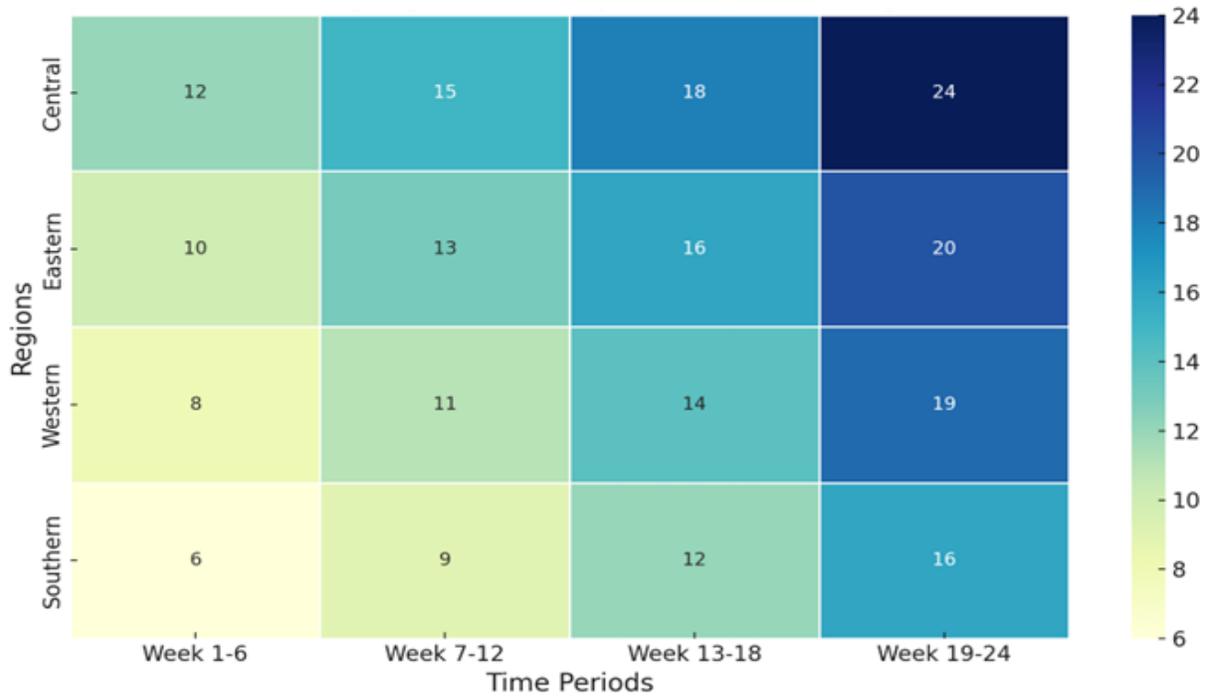


Figure 2 shows the percentage increase in language proficiency scores across different regions and time periods. The color intensity reflects the magnitude of improvement, with darker shades indicating higher increases.

Patterns of Parental Engagement

Based on the survey data, patterns varied significantly in different regions. Parents from the central and eastern regions reported frequent digital interactions, averaging five to six communications in a week. These regions had the highest percentages of parents who actively used multiple digital tools to track progress and communicate with teachers about their children's performance. In comparison, the western and southern parts had less frequent involvement, where parents contacted teachers once or twice a week. The rate of involvement appeared to be impacted by certain factors such as digital literacy and access to technology. The data showed that the more parents use digital platforms, the greater the likelihood that they participate in virtual parent-teacher meetings or other school activities, thereby improving students' language outcomes.

Figure 3: Patterns of Parental Engagement Over 24 Weeks

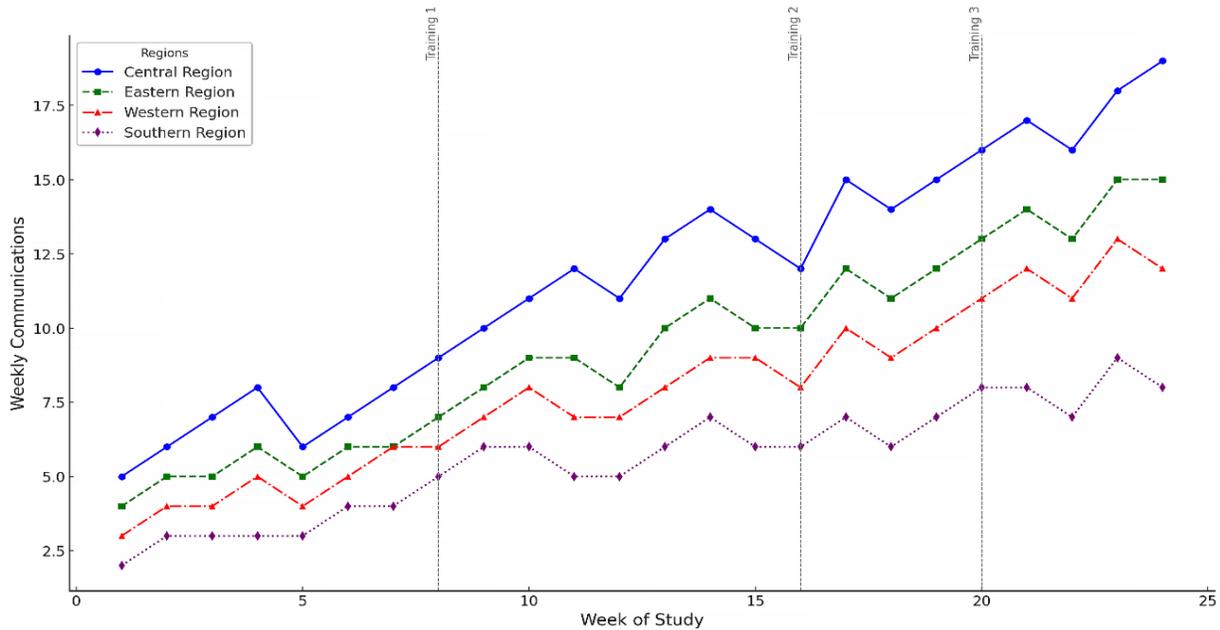


Figure 3 illustrates the weekly patterns of parental engagement across four regions over 24 weeks. Noticeable increases in engagement are observed following each training session, suggesting a positive impact of the interventions. The Central and Eastern regions consistently exhibit higher engagement than the Western and Southern regions.

Qualitative Insights

Regional Variations in Parental Involvement

Qualitative findings from interviews and focus groups indicated profound regional variation in parental involvement. Therefore, parents in the Central region were much more committed to engaging with the provided digital tools, often citing greater access to resources and greater comfort with technology. The region's clear cultural commitment to academic success appeared to be associated with higher levels of parental engagement. In the southern region, challenges related to digital literacy and a highly traditional view of education hindered overall parental involvement. Some parents in this region were highly apprehensive about using digital tools and preferred face-to-face communication. The western and eastern regions exhibited aspects of both patterns. Some parents were highly involved in their children's education, whereas others faced barriers stemming from time constraints or limited familiarity with digital tools.

Figure 4: *Parental Engagement Practices Framework*

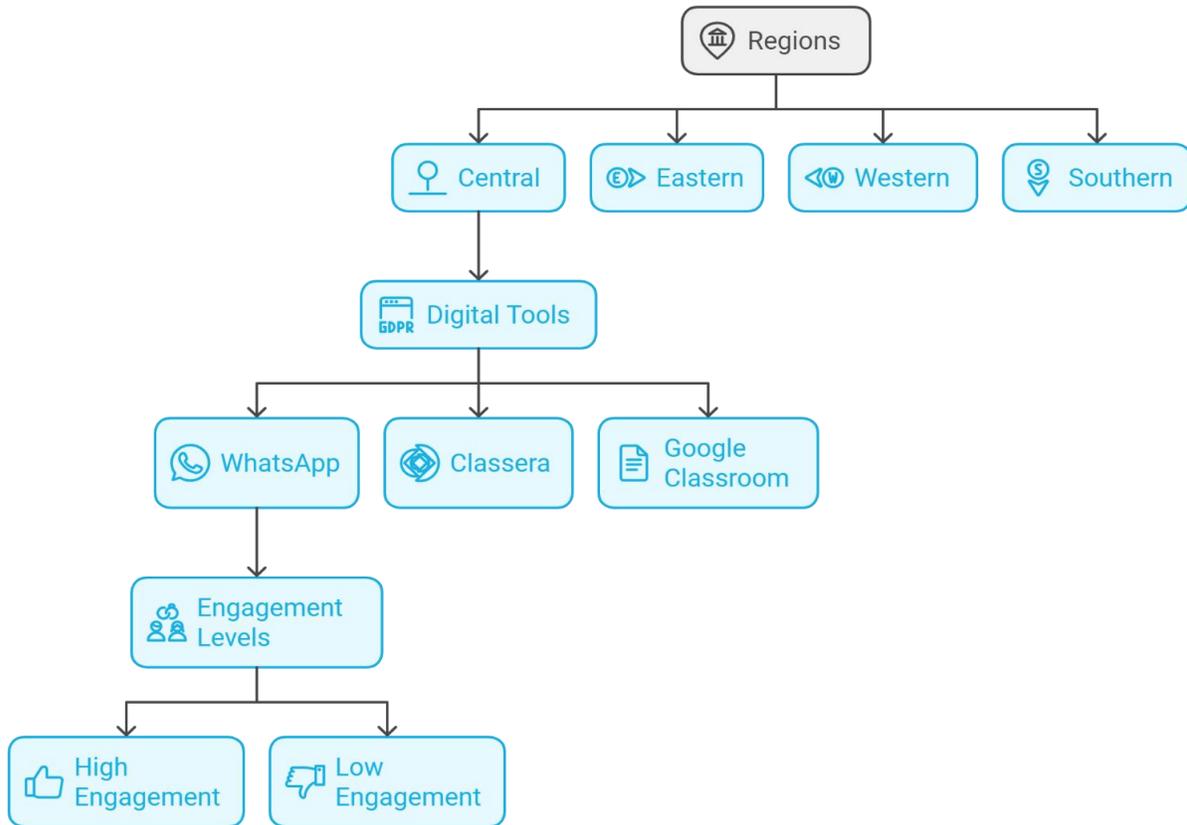


Figure 4 illustrates the framework for how parental engagement practices vary across regions in Saudi Arabia and for the use of digital tools. The flow begins with the four main regions—Central, Eastern, Western, and Southern—and culminates in three primary digital tools: WhatsApp, Classera, and Google Classroom. Each tool then maps to different engagement levels, representing parents' involvement, with distinct paths indicating transitions between high and low engagement (Farid, 2023).

Barriers and Enablers to Digital Engagement

The qualitative data highlighted a series of barriers and enablers that influenced the extent to which parents engaged digitally. Significant barriers included limited digital literacy, particularly in the southern region, and cultural norms that made frequent interaction between parents and teachers difficult. Other factors that engaged parents reported to include a lack of reliable internet access. On the other hand, regarding enablers that made engagement possible, schools provided training in digital tools and did not require parental involvement in language learning. For instance, schools in the central region organized workshops to teach parents to use platforms such as Google Classroom and Classera; consequently, participation increased. Moreover, parents who received regular feedback from teachers on their children's progress were more actively involved, as they could see direct results of this involvement in their children's language development.

Figure 5: *Barriers and Enablers to Digital Engagement Across Regions*

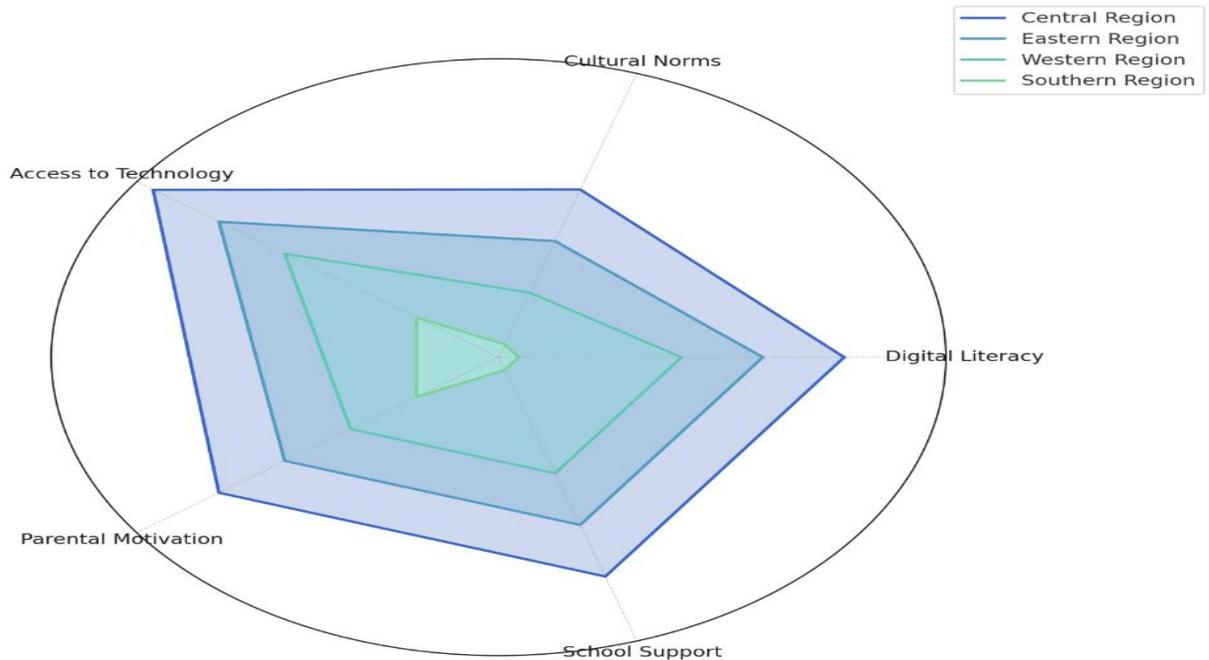


Figure 5 illustrates the barriers and enablers to digital engagement across regions. Scores for each region are plotted across five factors, illustrating their relative levels of digital literacy, cultural norms, access to technology, parental motivation, and school support.

Integration of Quantitative and Qualitative Findings

The integration of quantitative and qualitative findings provides a comprehensive landscape for understanding how digital parental engagement affects language acquisition across regions in Saudi Arabia. Quantitative findings showed that higher frequencies of digital parental involvement were positively associated with improvements in speaking and writing proficiency. While the qualitative data deepened these findings by showing that regional and cultural factors are leading contributors to patterns of engagement, it also demonstrated the validity of previous results. For example, although the central region reported the highest gains in language proficiency, qualitative insights indicated that this was partly because parents there had higher levels of digital literacy and motivation to use multiple engagement tools. Poorer proficiency improvements in the South were related to lower frequencies of digital contact and higher reliance on traditional methods of communication. A specific benefit of this mixed-methods approach was the identification of barriers to robust digital engagement strategies, such as digital literacy issues and cultural norms. These findings therefore support the applicability of digital parental engagement strategies based on regional contexts.

Figure 6: *Improvement in Language Proficiency and Qualitative Comments by Region*

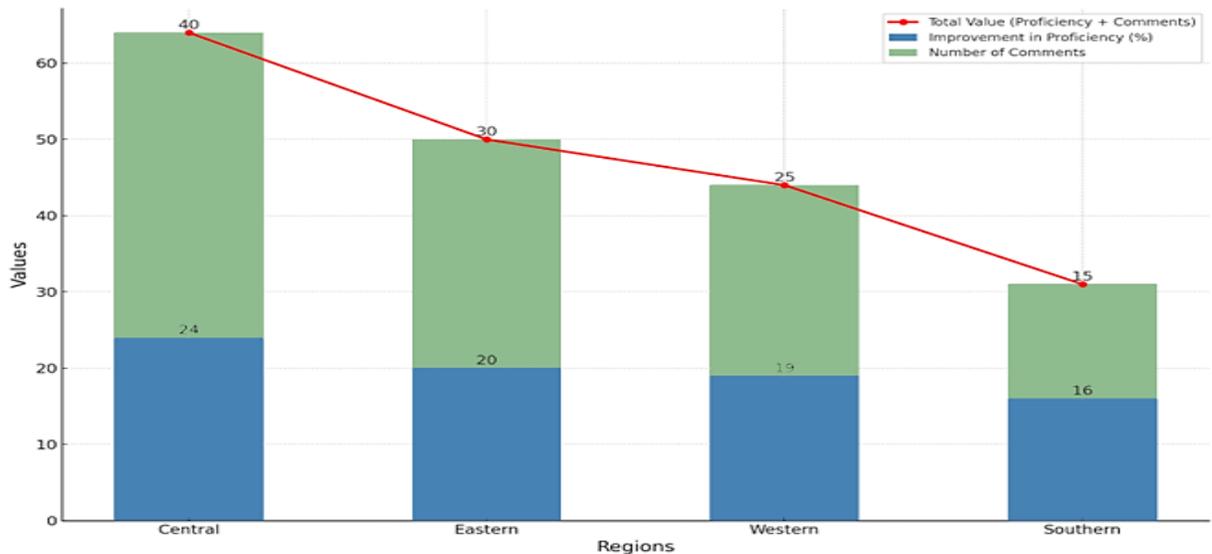


Figure 6 displays the improvement in language proficiency and the number of qualitative comments across regions, with a red line indicating the total for each region. The Central region exhibits the highest overall impact, followed by the Eastern region, reflecting higher engagement. The inclusion of the line helps illustrate cumulative trends, facilitating comparisons of regions based on total contributions.

Interpretation of Results

The findings reveal that digital parental engagement has a positive effect on language acquisition, with measurable improvement in speaking and writing proficiency. The overall average gain in proficiency scores is 21% across all regions. This indicates how digital tools support language learning through parents, thereby increasing their engagement in their children's educational development. Indeed, real-time feedback and periodic updates from teachers may also have supported these gains by reinforcing regular language practices at home. Nevertheless, regional variations underscore the need to account for local factors when implementing digital engagement strategies. For example, southern regions of the country may require support to build basic familiarity, given low digital literacy among parents. Some of the barriers identified in the qualitative findings included cultural expectations and technological limitations; hence, digital parental engagement should not be a one-size-fits-all approach. Strategies should be adapted to the specific needs of each region. Digital literacy training, for instance, would help bridge some gaps in less active areas, such as parental support and access to dependable internet services. The study's overall evidence indicates that while digital tools hold enormous potential for improving language learning, their full potential can be realized only if they are complemented by place-based interventions that target specific barriers.

Comparison with Previous Studies

The findings of this study align with previous studies on the benefits of parental involvement in education. Consistent with prior research, the current study finds that active parental engagement positively affects children's language development. This article adds to the growing body of literature by specifying a scope relevant to how digital tools can enable involvement throughout diverse cultural and regional contexts. The research background described so far is further supported by evidence that many previous studies have focused on Western contexts, where

digital literacy is generally higher, and access to technology is well established. Therefore, whereas most previous research has focused on Western educational contexts, where digital literacy levels are generally higher and access to technology is well established, the current study extends these findings to a non-Western context with unique cultural challenges and digital infrastructure: Saudi Arabia. Ahmed shows that structured digital feedback mechanisms significantly improve learner engagement and performance during online instruction. This reinforces the importance of real-time feedback in digitally mediated parental involvement. Ahmed (2021). Moreover, while most research has emphasized the general benefits of digital parental engagement, this study contributes to a better understanding of its effects on children's language proficiency, particularly in speaking and writing. Regional differences that could be observed are indicative of how local factors shape the effectiveness of digital engagement strategies—a topic rarely approached in the literature (Ashraf & Adnan, 2022).

Limitations of the study

There are some limitations in this research study. The sample size, although stratified and involving occasional respondents, was limited to international schools in Saudi Arabia, which may not be representative of other educational settings. Moreover, reliance on self-reported measures to assess parental involvement introduces measurement bias. Moreover, the six-month period examined in this study may be too short to capture long-term trends in language acquisition. Future research might address some of these limitations by generalizing to a wider range of schools, using objective measures of engagement, and employing longer-term designs to assess the sustainability of observed improvements in language proficiency.

Conclusion

This study demonstrated that parents' digital engagement may inspire language acquisition among high school students in the Saudi Arabian multicultural educational context. The overall improvement in standardized assessments of speaking and writing averaged 21% over six months. These portals, including WhatsApp, Classera, and Google Classroom, facilitated more active parental engagement through regular, real-time feedback. However, this varied across regions, peaking in the central region at 24%, attributable to higher levels of digital literacy and resource availability. The southern region recorded relatively lower gains of 16% due to cultural barriers and limited access to technology. The qualitative data supported this, indicating that cultural norms and digital literacy drive parental engagement. Some parents felt empowered by the use of digital tools to support their children's learning more actively. In contrast, other parents served as a control group and represented those experiencing challenges with both technologies use and traditional educational views. Discrepancies such as these indicate substantial potential for language learning through digital tools, yet local contexts prevail; therefore, strategies must be culturally and regionally specific.

Recommendations for future research based on this study include expanding the scope of schools selected beyond international settings to include other types of schools, thereby providing a broader view of parental involvement in children's language development. Future studies could use longer longitudinal periods to test the sustainability of digital parental engagement and its effects on language proficiency. Further research could examine other dimensions of language learning, such as listening and reading, to provide a more comprehensive picture of their effects on overall language development. Such self-reported data may be revised in future studies by incorporating objective measures of parental engagement, such as analytics from the use of

digital platforms. Such explorations should go further by incorporating digital literacy and cultural expectations to develop appropriate interventions that improve parental involvement.

Recommendations and Implications

Implications for Educational Practice

The study finds that through digital engagement, parents can increasingly support language development; hence, schools are increasingly hopeful about effectively deploying digital tools such as WhatsApp, Classera, and Google Classroom in their communication strategies. In this way, teachers can provide prompt feedback, share learning resources, and regularly communicate students' progress to parents. For best results, schools should introduce digital engagement in a structured manner, with clear expectations, ongoing support, and regular follow-up to ensure sustained engagement. Digital engagement embedded in school practices is a rich and innovative way for an educational facility to foster a supportive learning environment.

In addition to language barriers, the study identified digital literacy and cultural differences in engagement as major obstacles to implementing parental training programs. Schools should hold workshops and training sessions in which parents are taught to use digital platforms for features such as progress monitoring, communication with teachers, and support for home-based language practice. It is also suggested that these programs should be adjusted to reflect current levels of digital competencies and cultural attitudes to address the problems identified in less-engaged regions, thereby ensuring active participation by all parents in their children's education. Strengthening parents' digital skills could lead to a more collaborative approach to language learning, thereby improving student achievement.

Policy Implications

Policymakers should recognize the importance of digital literacy in enabling effective parental engagement. The development of digital skills in parents in areas where their digital literacy is low must form part of the national education policies. The study argues that sustainable educational improvement depends on embedding innovations within formal quality systems. This directly informs policy recommendations advocating structured, scalable digital parental engagement initiatives. Ahmed et al. (2025). To this end, incorporating digital literacy programs into broader educational efforts will help narrow significant technology skill gaps among parents, preparing them to support their children's learning effectively through digital means. The programs could be implemented in schools and other community organizations to ensure that accessible training sessions, online resources, and support are available to all low-income families, promoting equitable engagement across regions.

The findings of this study thus indicate a need for policies that account for the diverse cultural and regional contexts within Saudi Arabia. Policies should support inclusive digital engagement by encouraging schools to adopt flexible strategies that accommodate cultural norms while ensuring consistent parental involvement. These include, but are not limited to, making modes of communication accessible to less technologically empowered parents and adjusting the frequency of digital communication to reflect regional preferences.

Implications for Broader Educational Settings

The insights from the study can be easily transferred to other multicultural and international educational settings facing challenges in language acquisition. Schools should adapt digital engagement strategies to their specific cultural and technological contexts, ensuring full accessibility and inclusivity for diverse student populations.

The various digital strategies of parental involvement shared in the study can be scaled up to serve a more diverse educational environment. Consequently, by using a flexible framework that accounts for regional and cultural differences, schools globally can leverage digital tools to engage parents and support language learning more effectively.

Conflict of Interest

The authors showed no conflict of interest.

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